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PUBLIC WORKS AND ELECTRICITY SECRETARIAT

Notification No. PWD 157 EIG 74
Bangalore, dated 28th May 1976.

G S R. 156 —

In exercise of the powers conferred by rule 45 of the Indian Electricity Rules, 1956, the Government of Karnataka hereby make the following rules and conditions for the grant of licences to electrical contractors, certificates of competency and permits to electrical supervisors and permits to wiremen, namely :—

PART I

Preliminary

1. Title, extent and commencement.—(1) These Rules may be called the Karnataka (Licensing of Electrical Contractors and grant of certificates and permits to Electrical Supervisors and Wiremen) Rules, 1976.

(2) They shall extend to the whole of the State of Karnataka.

PART II

2. Definitions.—In these rules, unless the context otherwise requires,—

(a) 'Board' means the Karnataka Electrical Contractors, Supervisors and Wiremen's licensing Advisory and Examinations Board;

(b) 'Contractor' means the electrical contractor licensed under these rules;

(c) 'Form' means a form appended to these Rules;

(d) 'Licence' means a licence granted under these Rules;

(e) 'Rules' means the Indian Electricity Rules, 1956;

(f) 'Supervisor' means an Electrical Supervisor qualified under these Rules;

(g) 'Wireman' means an Electrical Wireman qualified under these Rules;

(h) 'Agreement' means an agreement to be executed by the contractor with the consumer in the prescribed form 'Y'.

PART III

Licensing Advisory and Examinations Board

3. Establishment of the Board.—(1) For advising the State Government in the matter of grant of licences and for carrying out the other purposes of these rules, an Electrical Contractors', Supervisors' and Wiremen's Advisory and Examinations Board (hereinafter referred to as the Board) shall be constituted consisting of the following members, namely :—

(a) The Electrical Inspector to Government of Karnataka;

(b) The Deputy Electrical Inspector to Government of Karnataka, Bangalore;

(c) Two nominees of the Karnataka Electricity Board;

(d) One nominee of the Mysore Power Corporation (MPC), Bangalore;

(e) The Director of Technical Education in Karnataka

(f) One nominee of the Licensed Electrical Contractors' Association, Bangalore who shall be a graduate or a Diploma in Electrical Engineering;

(g) One person nominated by the Mines Department, Government of India.

2. The Electrical Inspector shall be the Chairman and Assistant Electrical Inspector, Office of the Electrical Inspector, shall be the Secretary of the Board.

4. **Functions of the Board.**—The following shall be the functions of the Board, namely:—

(a) to receive and scrutinise applications for the grant of Electrical Contractors Licences and make suitable recommendations to the State Government;

(b) to receive and scrutinise the applications for the grant of certificate of competency and permits to Electrical Supervisors and permits to Wiremen and to make suitable recommendations to Government;

(c) to conduct examinations for purposes of grant of certificates and permits referred to in (b) above;

(d) to enquire into allegations of incompetence, negligence, breach of the Indian Electricity Rules, 1956, or malpractice on the part of any Electrical Contractors, Supervisors and Wiremen or on breach of any conditions of such licence, certificate or permit and to make recommendations to the Government in the matter; and

(e) generally to advise the State Government regarding all matters related to licences, certificates or permits.

5. **Meeting, etc.**—(1) The Board may meet as often as necessary.

(2) For every meeting the quorum shall be five including the Chairman.

6. **Duties of the Chairman.**—The Chairman shall.—

(a) preside over all the meetings of the Board;

(b) forward the recommendation of the Board to the State Government in the matter of issue of licences to Electrical Contractors.

7. **Duties of the Secretary.**—The Secretary shall.—

(1) Place before the Board all applications from lectrical contractors for issue or renewal of licences for orwardal to the State Government alongwith the recommendations of the Board and assist the Chairman to attend o all correspondence in connection therewith;

(2) scrutinise applications for admission to the examination for supervisors and wiremen and assist the Chairman to attend to all correspondence in connection herewith; and

(3) do all other things directed by the Chairman or the Board.

PART IV

Licences to Electrical Contractors

8. **Licence obligatory.**—No electrical installation work shall be undertaken except by a Contractor licensed under these rules.

9. **Classes of Licensed Electrical Contractors.**—(1) There shall be three classes of Licensed Electrical Contractors, namely: Class I, Class II and Class III Contractors.

(2) Class I Contractors shall be eligible to carryout all kinds of Electrical Wiring and installation works of low, medium, high and extra high voltage as defined in the Indian Electricity Rules, 1956. Class II Contractors shall be eligible to carryout the electrical wiring and installation works of low and medium voltages only. Class III contractors shall be eligible to carryout the electrical wiring and installation works of low voltage only.

10. **Applications etc.**—(1) Applications for the grant of an Electrical Contractor licence shall be addressed to the State Government and shall be made to the Secretary Licensing Advisory and Examination Board, Electrical Inspectorate, Bangalore. An applicant for Class I Contractors licence shall be solvent to the extent of rupees 10,000 and for Class II licence to the tune of rupees 5,00(

Provided that the solvency required for un-employed graduate and diploma holders in Electrical or Mechanical Engineering for Class I or Class II contractor's licence shall be rupees 3,000.

2. The application referred to in sub-rule (1) shall be in form D and it shall be accompanied by the solvency certificate either in form D-I or D-II, as the case might be.

11. **Fee.**—Every application shall be accompanied by the challan or cash receipt for having paid the following fee, namely:—

(a) For grant of Class I Contractor's Licence Rs. 300.00,

(b) For grant of Class II Contractor's Licence Rs. 200.00,

(c) For grant of Class III Contractor's Licence Rs. 100.00.

12. **Board to recommend.**—All applications filed under rule 10 shall be scrutinised by the Board. Applications satisfying the conditions specified in rule 13 shall be recommended for grant of licence to the State Government, provided that the application of any person disqualified under rule 14 shall not be recommended.

13. **Condition for the grant of a Contractor's Licence.**—An Electrical Contractor's licence may be granted to the applicant whether he be a person or a firm who fulfills the following conditions, namely:—

(1) He shall himself hold a valid Electrical Supervisor's permit granted or recognised by the State Government and shall personally supervise the Electrical contract works undertaken by him or maintain in his sole employ a full time electrical supervisor holding a valid Electrical Supervisor's permit granted or recognised by the State Government for direct supervison of the contract works undertaken by the contractor.

(2) He shall always maintain the following testing instruments in good working condition for carrying out the tests required under the Indian Electricity Rules, 1956,

and shall present them whenever called upon to do so, for checking and inspection by any officer of the Electrical Inspectorate Government of Karnataka.

Class I Contractor :

(1) Megger 1000 Volts Class and 500 Volts Class.
(2) Voltmeter 0-600 V. Range.
(3) Ammeter 0-60 Amps. Range.
(4) Phase Sequence Meter.
(5) Live Line tester (One for each Wireman).
(6) Wire guage or Micro-meter.
(7) Hand Rubber Gloves—tested to 15 kV.
(8) Tong Tester—0-600 Amps. range.
(9) Earth Tester with accessories.

Class II Contractors :

(1) Megger—500 V. Class.
(2) Voltmeter—0-600 V. Range.
(3) Ammeter—0-60 Amps. Range.
(4) Live line tester (one for each wireman).
(5) Hand Rubber Gloves tested to 15 kV.
(6) One Wire Guage.

Class III Contractors :

(1) Megger—500 V. Class.
(2) Live Line Tester (one for each wireman).
(3) One wire guage.
(4) Hand Rubber Gloves tested to 5 kV.

14. **Disqualification for grant of licence.**—An applicant whose licence had previously been cancelled on grounds of malpractice shall be disqualified for grant of a licence.

15. **Disposal of applications.**(1) The State Government shall consider the applications and its enclosures and the recommendations of the Board and by order approve or reject the application for grant of the licence.

(2) Every order passed under sub-rule (1) shall be communicated to the applicant by the Electrical Inspector to Government.

(3) The licence shall be granted in form LA-1, LA-2 or

16. **Duration and renewal of licence.**—(1) Every licence granted shall be valid for a period of one year ending on 30th June.

(2) Any licence may, subject to the same terms and conditions as are applicable to grant of licence, be renewed for a further like period: Provided that application for renewal shall be made in form 'E' before the expire of the licence period and is accompanied by a challan or cash receipt for the payment of renewal fee of Rs. 75 only for class I licence, rupees 50 for class II licence and rupees 25 for class III licence as the case might be. Late application for renewal will be considered provided the application is received on or before the last working day of the month of July following, along with a challan or cash receipt for the payment of late fee of Rs. 25 in addition to the payment or regular annual renewal fee as specified above.

17. **Licensee to abide by the conditions.**—(1) Every licensee shall be bound by the provisions of these rules and terms and conditions of the licence.

(2) Whenever it appears to the Government that the licensee has committed default, the licence can be suspended and enquiry instituted. The State Government may cancel the licence if it thinks fit: Provided no licence shall be cancelled except after giving the licensee an opportunity of making representations.

(3) The order of the State Government under sub-rule (2) shall be final.

PART IV

Certificate of Competency and Permits to Industrial Electrical Supervisors.

18. **Prohibition.**—Every work of electrical wirings and installation of low, medium, high and extra-high voltage as defined in the rule shall be done only by persons holding certificates of competency and permits, Provided that (i) graduates, diploma holders and licentiate in electrical or mechancial engineering from any University or institution recognised by the State Government as the case may be, be

authorised by special permission valid for one year granted by the Government, for carrying out wiring of their own installations. Fee for such special permission shall be Rs. 10 only.

(ii) Special wiring permissions valid for one year may be granted by the Government, at their discretion, to the authorities of large concerns to get their own installations wired up under the supervision of a technically qualified person in their employ, who possess qualifications and experience equivalent to those necessary for an electrical supervisor and obtains competency certificate and permits as provided in these rules. Fee for such special wiring permission shall be Rs. 200.

19. Grant of certificates of competency and permits.— (1) Certificates of competency in form H or J and permits in Book form M shall be granted by the Government to persons who have passed the examinations conducted by the Board or to Graduates, Diploma Holders and Licentiates in Electrical or Mechanical Engineering from any University or Institution recognised by the State Government who are exempt from appearing for the Examination conducted by the Board.

(2) Applications for the examination shall be made in Form 'F' to the Secretary of the Board on or before the date specified by the Board. It shall be accompanied by—

(a) A true copy of the educational testimonials, if any;

(b) Testimonials from his present and past employers regarding conduct and practical experience in Form 'Q' appended, or in case he is himself a contractor a declaration in Form 'S' appended;

(c) Government Treasury or Reserve Bank of India challan or cash receipt in support of having paid the examination fee of Rs. 60 under relevant Budget Head;

(d) Three copies of latest photograph (size 2"×2½") with name and signature on the back.

(3) No candidate shall be admitted to the examination if in the opinion of the Board he is not eligible.

20. **Examinations, etc.,**—(1) The examination referred to in rule 19 shall be held at Bangalore and Hubli every year, preferably in the month of June. The Board shall notify the exact date of the Examination.

(2) No person shall be eligible to apply for the examination unless he possess not less than three years practical experience in electrical wirings and is capable of answering written examination in English or in Kannada and has completed the seventh standard course.

21. **Syllabus.**—The syllabus for the examination shall be as in the Schedule-I.

PART V

Certificate of Competency and permits to Electrical Supervisors for working in Mines.

22. **Certificate of compentency and permit.**—(1) Certificate of competency in Form I or K and permit in Book Form 'N' shall be granted by the Government to persons who have passed the examination conducted by the Board or Graduates in Electrical Engineering and holders of Diploma recognised as equivalent to Degree in Electrical Engineering, having practical experience of at least one year in Mining installations shall be exempted from appearing this examination but shall be subject to Oral Test. Holders of Diploma (other than those recognised as equivalent to Degree) in Electrical Engineering of recognised Institution, shall be exempted from appearing this examinations, if they have practical experience of five years, of which at least two years should be in Mining installation, but they shall be subject to oral test.

(2) Every person desirous of taking the examination shall make an application in Form 'G' to the Secretary of the Board on or before the date specified by the Board.

(3) Application shall be accompanied by the following, namely :—

(a) A Government Treasury or Reserve Bank Challan or Cash Receipt in support of having paid the examination

fee of Rs. 60. The fee shall be credited to the relevant budget head.

(b) Copies of testimonials, if any, in respect of his qualification with true copies attested by a Gazetted Officer.

(c) Certificates in Form 'R' (Details if desired in a separate sheet of paper) from his present and past employer.

(d) Three copies of his latest photograph (size 2"×2½") with his name and signature on its back.

23. **Eligibility.**—(1) No person shall be eligible to take examination under rule 22 unless—

(a) he has attained 23 years of age on the date of examination;

(b) possess a certificate of practical training issued by State or Central Government undertakings/sponsored concerns, of at least five years in Electrical Engineering of which at least two years should be in mining installation and should be capable of answering written papers in English or Kannada; and

(c) has completed the Seventh standard course.

(2) The syllabus for the examination shall be as specified in the Schedule-II.

PART VI

Permits for Wiremen

24. **Permit.**—(1) Wireman's permit in Book Form 'O' shall be issued by the State Government to persons who have passed the examination conducted for the purpose by the Board or to persons who possess Wiremen/Electrician Trade Certificates issued by the Institutions recognised by the State Government who are exempt from appearing the examination conducted by the Board.

(2) Such examinations shall be held at Bangalore and Hubli every year, preferably in the month of June. Exact time and date of the examination shall be notified by the

25. **Eligibility.**—No person shall be eligible to take the examination referred to in rule 24 unless—

(a) he has worked on electrical wiring and electrical installation works for not less than one year under a Licensed Electrical Contractor in the State of Karnataka ;

(b) he possess any other electrical training of practical experience which is recognised as satisfactory by the Board ; and

(c) he has completed the VII Standard Course.

26. **Applications, etc.,**—(1) Applications for the said examination shall be made in Form 'F' and shall be accompanied by the following, namely.—

(i) testimonials from employers, regarding good conduct and practical experience, in Form 'Q';

(ii) Government Treasury or Reserve Bank Challan or Cash Receipt in support to having paid the examination fee of Rs. 25 under the relevant budget head ;

(iii) Three copies of the latest photographes (size 2"×2½") with his name and signature on back.

(2) The Syllabus for the examination shall be as in Schedule III.

27. (1) Every permit referred to in Rules 19, 22 and 24 shall be valid for one year ending at the end of December.

(2) Every permit may be renewed for a further like period provided that application for renewal shall be made in form 'T' accompanied with a Treasury or Reserve Bank Challan or Cash Receipt in token of having paid the renewal fee—as indicated below on or before the expiry of the permit period.

Rs. 25 for Industrial and Mining Supervisors permit.

Rs. 10 for wireman permit.

(3) Late applications may also be received within three months after the expiry of the permit period provided the application is accompanied with a Treasury of Reserve Bank Challan or Cash Receipt in token of having paid the renewal fee specified in sub-rule (2) above plus the Treasury or Reserve Bank Challan or Cash Receipt in token of having paid the late fee as indicated below :—

Rs. 15 for Industrial and Mining Supervisor's permit.

28. (1) Every holder of the permit shall be bound by the rovision of these rules and the Indian Electricity Rules)56.

(2) Every permit shall be liable to be suspended whenever appears to the Electrical Inspector to Government that its older has committed a default. Thereafter the Electrical ıspector to Government shall hold an enquiry against the ermit holder and forward the report of enquiry with his re- ommendation to the Government. On consideration of ıe report of enquiry as well as the recommendation of the lectrical Inspector to Government, the State Government ıay cancel the permit.

(3) Against the order of suspension made by the Electrical ıspector to Government, the permit holder may appeal to ıe Government within a period of 15 days from the date of ceipt of order of suspension by him to the Secretary to lovernment, Public Works and Electricity Department. he State Government after consideration of the appeal in ıch manner as deemed necessary may either reject the ppeal or revoke the order of suspension with such condi- ons as may be deemed necessary.

(4) The order of the State Government under sub-rules !) and (3) shall be final.

29. **Issue of Duplicate Licence and Permits.**—Duplicate cence or permit may be issued by the Electrical Inspector) Government on production of satisfactory proof as to its ss, provided the application for issue of duplicate licence r permit is made accompanied with a Treasury or Reserve ank Challan or Cash Receipt in token of having paid the e of Rs. 25.

30. All those who have passed the Supervisor and Wire- ıan Examination under the old rules issued in Notification lo. PWD 39 IPL 58, dated 7th July, 1958 shall be deemed to ave passed the Examination under these Rules.

31. The State Government may recognise on reciprocal asis the certificate of competency and permits issued to y other Licensing Boards and permits issued

to Wiremen by other Licensing Boards for whom Certificate of competency and permits to Supervisors and permits to Wiremen will be granted by the Electrical Inspector to Government after obtaining apporval from the State Government provided the necessary fees of Rs. 25 paid along with the application.

By Order and in the name of the Governor of Karnataka,

BHIMA RAO,
Deputy Secretary to Government,
Public Works and Elecy. Department.

SCHEDULE—I

SYLLABUS FOR ELECTRICAL SUPERVISOR'S EXAMINATION

The Examination will consist of :—

(1) The following two written papers, such of two hours duration and each carrying 50 Marks.

PAPER (I) COMPULSORY :
Electricity—Theory (Elementary knowledge).

PAPER (II) COMPULSORY :
Electricity Utilisation.

(2) An oral practical test carrying 100 Marks. To pass the examination, a candidate must secure 20 marks in each written paper and forty marks in the oral and practical test. No certificate shall be issued unless a candidate passes in Paper (I) and (II) and the oral and practical test.

PAPER—I

ELECTRICITY—THEORY (ELEMENTARY KNOWLEDGE)

Principles of Electricity.—Electric pressure, current and resistance Ohm's Law—Specific resistance, Laws of resistance and their application for calculating voltage, drop. Series and parallel circuits, practical units of voltage, current, resistance, power and energy. Relation between electrical power unit (K.W.) and mechanical power unit (H.P.).

Electro Magnetism.—Production of E.M.F. and Flemings Right and Left hand rules. Magnetic, chemical and heating effects of electric current. Magnetic properties of material. Eletromagnets and their applications

Materials.—Conductors, Non-conductors and insulators insulating materials and their relative merits. Transformer oil, effect of heat and moisture on insulation. Lubricants and their use.

Different types of wires, cables, switches, circuit—breakers cutouts, etc., and their safe current carrying capacity. Use of tables and data sheets generally given in electrical hand books.

Generation of Electricity.—Sources of natural energy. Types of prime movers. Methods of producing Electromotive force, Alternating current and direct current.

A. C. Generators (Alternators).—Essential components and constructional features. Methods of voltage and frequency control conditions and methods for synachronising. Simple associated switch board and its accessories.

D. C. Generators.—Essential components and constructional features, shunt, series and compound dynamos and their characteristics, causes for sparking. Interpoles. Commutators and their maintenance. Carbon brushes, their adjustment and care. Methods of voltage regulation. Conditions for parallel operation, simple associated switch board and its accessories.

Batteries.—Primary Cells, Dry cells, storage or Secondary batteries or Accumulators and their installations. Lead acid cells, Nickels Iron or Alkaline cells. Initial and subsequent charging of batteries. Changing circuits and their calculations. Series and parallel circuits. Maintenance of batteries. Use of Hydrometers.

A. C. Motors.—Theory of induction (squirrel cage and slip ring type) Synchoronous and commutated motors, their uses, installation methods of starting and speed control and reversal of direction.

D. C. Motors.—Theory of series, shunt and compound wound type motors, their uses, installation, methods of starting and speed control and reversal of direction.

A. C. Circuits.—Knowledge of vectors. Phase and phase difference. Resistence, inductance and capacitance in an A.C. Circuits. Periodicity or frequency. Power and power factor. Single phase and three phase systems. Star and delta connections. Phase sequence.

Controlling and regulating Gear.—Knowledge of various types of switches and circuit breakers and cut-outs, starters regulators protective devices for the A.C. and D.C. motors and their wiring with the

Transformation.—Knowledge of single-phase and three phase transformers, their construction, use and maintenance, Phasing out, Parallel working, Auto-transformer, Transformer tappings, Temperature rise, Instruments transformers.

Conversions.—Principles of operation of motor generator sets, rotary convetors and mercury arc rectifiers.

TRANSMISSION AND DISTRIBUTION

(a) **Overhead Lines.**—Simple calculations and general principles of construction of low, medium and high pressure lines ; size of conductors, length of spans, sag strength of poles, spacing of conductors, cross arms, effects of temperature, wind pressure, ice and snow, tension on wire. Insulators brackets, stays strucs, guard wires and other protective devices. Earthing, lighting arrestors and Lightning conductors and their testing. Testing fault location.

(b) **Underground Cables.**—Simple calculations and general principles of laying cables, direct in ground, in through and in pipes ; handling, bending, jointing, plumbing, underground and above ground junction boxes. Distribution, board and pillars with compounds. Testing and fault location.

Illumination.—Metal filament lamps, flourscent lamp circuits. High voltage luminous tube sign installations. Photometric units and simple measurements. General requirements of efficient lighting and its elementary calculations. Street lighting. Time switches.

Safety Rules.—Working knowledge of———

(i) The Indian Electricity Rules-1956 with amendments up-to-date.

(ii) Wiring rules.

Protection and restoration of persons suffering from electric shock.

PAPER—II

ELECTRICITY UTILISATION DOMESTIC INSTALLATION

Wiring.—Wiring layouts of different types such as cleat, metal sheethed, wood casing and capping. Cab tyre sheathed, conduit and armoured cable for lighting and power installations in residential premises together with the necessary switchgear. Estimate of materials and cost of different types of installations. Wiring of temporary installations and portable appliances.

rcuit-Diagrams.—Electrical connections of various circuits for—
(i) House wiring including those for main and sub-distribution
l switches and cutouts, etc., together with the load statement for
circuit and,
(ii) Lifts with their safety devices.

paratus.—Installation and maintenance of heaters, cookers
erators and others domestic applicances, Electric bells and indica-
small motors for pumps and electric lifts.

ergy measurement and charges.—Energy meters both D.C. and
. for house service.

nple calulations.—Relating to cost of energy, elementary knowledge
ethods of charging for energy.

sting and fault attendance.—Detection and location of faults in
stic appliances and wiring installations, insulations and countinuity
. Rectification of faults. Tests for insulation resistance to earth.
h testing.

otective Devices.—Elementary knowledge of the use of fuses and
its. Earthing of domestic appliances, motors, etc. Use of lighting
tors.

INDUSTRIAL INSTALLATIONS

iring.—Wiring layouts of different types such as cleat, wood casing
capping, Metal sheathed, cab tyre sheathead, conduit and armoured
for lighting and power installations in industrial premises
ther with the necessary switchgear. Estimate of materials and
of different types of installations. Wiring of temporary installations
portable appliances.

rcuit Diagrams.—Electrical connections for—
(i) D.C. and A.C. generators, switch boards, transformers, etc
(ii) Main and sub-distributing boards with circuit breakers switch
units, with load statement for each circuit.
(iii) D.C. and A.C. motors, their starters, regulators.
(iv) Battery charging equipment.
(v) Generating machinery.
(vi) Lifts with their safety devices.

Apparatus.—Installation and maintenance of generations, electric motors, electric lifts, electric furnances, electric welding plants, haulage and winding machines cooling and heating appliances.

Powers and energy measurements and charges.—Measurement of powers, watt meters, both D.C. and A.C. power factor correction by capacitors.

Simple calculations relating to cost of power and energy. Elementary knowledge of methods of charging for demand and energy.

Testing and fault attendance.—Detection and location of faults in D.C. and A.C. generators, motors, overhead distribution lines and underground cables, electric instruments and apparatus and wiring installations; rectification of faults. Insulation and continuity tests, test for insulation resistances to earth.

Protective devices.—Elementary knowledge of earthing of generators motors, machines, installations and appliances. Use of lighting arrestors, fuses, including higher rupturing capacity fuses, cut-outs, circuit breakers. Overload and no volt protection thermal trips. Field breaking switches and overspeed protection.

SCHEDULE—II

Syllabus for Electrical Supervisers (Mining Installations) Examination.

The examination will consist of :—

(1) The following two written papers such of two hours duration and each carrying 50 marks.

PAPER—I (Compulsory)

Electricity-Theory (Elementary knowledge)

PAPER—II (Compulsory)

Mines Installation

(2) An oral and practical test carrying 100 marks.

To pass the examination, a candidate must secure 20 marks in each written paper and 40 marks in the oral and practical test.

No certificate shall be issued unless a candidate passes in paper (I) and (II) and the oral and practical test.

PAPER—I

Syllabus same as for Paper I of Electrical Supervisor's (Industrial

Wiring.—Wiring layouts of different types such as clats, rea covered, cab tyre sheathed for lighting purposes at the surface and armoured cables for power and lighting installation underground.

Circuits Diagrams.—Electrical connections for :

D.C. and A.C. Generators, Switch board, transformers, etc.

(b) Distribution boards with circuit breakers, switch fuse units and gate switches.

(c) D.C. and A.C. Motors, their starters and regulators.

(d) Battery charger and lamp cabin.

Apparatus including flame proof apparatus suitable for use in hazardous locations in coal and oil mines :

INSTALLATION AND MAINTENANCE OF—

(a) Electrical winders including automatic contrivances, haulages, ventilating fans, pump units and compressors, their control gears and starters.

(b) Rectifier, rotary convertors, electric locomotives and battery charging station.

(c) Portable and transportable apparatus.

Coal Cutters.—Mechanical leader, conveyers, drill pannels with drill units, electric shovels, dragline, rotary drills in use in open case mines and face pumps, their control gears including gate and boxes.

(d) Power and lighting transformers and capacitors.

(e) Intrinsically/safe signalling equipment including telephone equipment.

(f) Shot firing apparatus including cables, their uses routine tests and maintenance.

General principles and Elementary calculations : of load, power and energy consumption in pumping, hauling and winding installation and other face machineries.

Power and Energy measurement and charges.—Measurement of power, watt meters, energy meters both D.C. and A.C. power factor correction by capacitors. Simple calculations relating to cost of power and energy. Elementary knowledge relating to cost of power and energy. Elementary knowledge of methods of charging for demand and energy.

Testing and fault attendance.—Detection and location of earth or other faults in electrical apparatus and cables, low voltage and remote control circuits. Insulation and continuity tests. Rectification of faults. Tests for insulation resistance to earth. Testing of leakage protective device. Earth testing and its continuity.

Flexible trailing cables for portable and transportable apparatus : Knowledge of different types of flexible cables including pliable armoured cables, their installation, maintenance fault detection, efficient repairs by vulcanised joints and testing.

Safety and protective devices. Knowledge of earth of metal frames of machineries. Use of H.R.C. cartridge fuses in circuit breaker as back up protection. Overload, no-volt and earth leakage protection of circuit breakers and starters.

Safety Rules.—Working knowledge of the Indian Electricity Rules 1956 with particular reference to chapter.

ORAL AND PRACTICAL TEST

An oral and practical test based on the syllabus for written papers will be held.

SCHEDULE—III

SYLLABUS FOR WIREMEN'S EXAMINATION

The Examination will consist of practical test (3 hours) carrying 100 marks and oral test carrying 50 marks.

To pass the Examination the candidate must secure at least 50 marks practical, 15 marks in oral and in aggregate of 75 marks in the examination.

Electric Pressure (Volts).
Electric Current (Amperes).
Power (Watts).
Energy (Watt-hours).
Ohm's Law.
Difference between A.C. and D.C. Supply.
Conductors and insulators.
Use of standard Wire Gauge.
Connections of Voltmeters and Ammeter.
Reading of Energy meters.
Simple calculations of power and energy.

Positive and Negative Live and Dead conductors.

Various uses of the Test Lamp and Bell.

Connections and Diagrams for distribution and Fuse Boards.

Cut-outs, ceiling roses, lamp holders, switches (including two-way and intermediate).

Wiring of fittings of small motors and other domestic appliances.

The installation of Electric Bells and indicators.

Connection of A.C. and D.C. fans and regulators; common faults in them and their remedies.

Method of carrying (Overhead) bare, lead covered and Cab tyre Sheathed wires over short distances.

Knowledge of danger points in simple lighting and power installation.

Testing for faults, Measuring insulation resistance to earth by Megger.

Precaution and method of treatment in case of a person suffering from Electric shock.

Marking straight and Tee joints in standard insulated wires.

Making Brittania and Western Union Joints in bare copper wires.

Soldering lugs on wires and cables.

GOVERNMENT OF KARNATAKA

[Rule 15(3)]

Form 'LA-1' No.....

LICENCE TO ELECTRICAL CONTRACTORS

CLASS "I"

Mr./Messrs..... is/are hereby authorised to carryout Electrical Installation work in the State of Karnataka subject to the conditions mentioned in the Rules issued by the Government of Karnataka under Government Notification.

Bangalore, Dy. Secy. to Govt. of Karnataka

Dated : Public Works & Elecy. Department

Date of Renewal	Date of Expiry	Initials of the authority.

1. This licence must be got renewed annually and must be produce on demand by the Officer of the Electrical Inspectorate, Governme of Karnataka.

2. This licence is valid for carrying out the following nature electrical installation :—

Class 'I' :—Extra High, High, Medium and Low voltage Ele trical Installation works.

3. The holder of this licence shall send intimation to the Secreta Licensing Advisory and Examinations Board in Writing within t periods specified below as to very change of :

(a) Address of the place of business.—Within two months of su change.

(b) Agent or Manager (in case of a limited Company).—With seven days of such change.

(c) Testing Instruments.—Within seven days of such change.

and shall also send similar intimation as to dissolution of partnersh within seven days of the date of such dissolution.

4. The Licensee shall always keep and maintain the followi instruments :

(a) Megger 1000v & 500v—One each.
(b) Voltmeter 0-600v—One.
(c) Ammeter 0-60 Amps.—One.
(d) Phase sequence meter—One.
(e) Live line Tester—(One for each Wiremen).
(f) Wireguage or Micrometer—One.
(g) One pair of 15 kV Rubber Hand Gloves.
(h) Earth Tester with accessories—One.

5. The licensee shall himself hold certificate of competency and va Electrical Supervisor permit issued by the Board or employ supervi holding competency certificate and valid Electrical Supervisor per issued by the Board endorsed to his firm. Hence shall maint " Attendance Register ".

6. The licensee shall get the work done only through the Wiren holding valid wiremen permit issued by the Board under dir supervision by the Supervisor. Hence shall maintain " work allocat Register ".

7. Every work undertaken by the licensee shall be evidenced by a written agreement with the person concerned. The wiring and other materials used by the licensee for the work executed shall conform to the standards approved by I.S.I. Hence, shall maintain (a) Application Register (b) Material Issue Register and (c) Copies of estimates and agreements duly signed by the licensee and the consumer concerned.

8. The licensee shall intimate the local Electrical Inspectorate Officer before undertaking the execution of any work in Form 'Z' appended to the rules, and also the completion of such work within three days from the date of completion of such work.

9. The licensee shall afford all facilities to the Electrical Inspector or any person/persons authorised by him in writting to inspect at all times any work under execution.

10. The Electrical Inspector may, if in his opinion the work under execution is likely to cause damages to the life or property of the consumer or any other person, direct to stop the work and rectify the defects. The licensee shall comply with such direction.

11. The licensee shall at all times ensure safety to the public.

12. The licensee shall be bound to comply with the provisions of the Indian Electricity Act, 1910 and Indian Electricity Rules 1956.

Deputy Secretary to Government of Karnataka,
Public Works & Electricity Department.

GOVERNMENT OF KARNATAKA
[Rule 15(3)]

Form 'LA-2' No.....

LICENCE TO ELECTRICAL CONTRACTORS

CLASS "II"

Mr./Messrs..... is/are hereby authorised to carryout Electrical Installation work in the State of Karnataka subject to the conditions mentioned in the Rules issued by the Government of Karnataka under Government Notification.

Bangalore. Deputy Secretary to Government of Karnataka,
Dated : Public Works and Electricity Department

Date of renewal	Date of Expiry	Initials of the authority

Conditions

This licence must be got renewed annually and must be produced on demand by the officer of the Electrical Inspectorate, Government of Karnataka.

2. This licence is valid for carrying out the following nature of electrical installation :—

Class 'II'—Medium and Low Voltage Electrical Installation works.

3. The holder of this license shall send intimation to the Secretary, Licensing Advisory and Examinations Board in writing within the periods specified below as to very change of :

(a) Address of the place of business.—Within two months of such change.

(b) Agent or Manager (In case of a Limited Company).—Within seven days of such change.

(c) Testing Instruments.—Within seven days of such change.

and shall also send similar intimation as to dissolution of partnership within seven days of the date of such dissolution.

4. The Licensee shall always keep and maintain the following instruments :

1. Megger—500 v. Class.
2. Voltmeter—0.600 v. Range.
3. Ammeter—0.60 Amm. Range.
4. Live Line Tester (One for each Wireman).
5. Hand Rubber Gloves tested to 15 kV.
6. One Wire Guage.

5. The licensee shall himself hold certificate of competency and valid Electrical Supervisor permit issued by the Board or employ Supervisors holding competency Certificate and valid Electrical Supervisor permit issued by the Board endorsed to his firm. Hence, shall maintain "Attendance Register".

6. The licensee shall get the work done only through the wiremen holding valid wireman permit issued by the Board under direct

Supervision by the Supervisor. Hence shall maintain " work allocation Register ".

7. Every work undertaken by the licensee shall be evidenced by a written agreement with the person concerned. The wiring and other materials used by the licensee for the work executed shall conform to the standards approved by I.S.I. Hence, shall maintain (a) Application Register. (b) Material Issue Register and (c) Copies of estimates and agreements duly signed by the licensee and the consumer concerned.

8. The licensee shall intimate the local Electrical Inspectorate Officer before undertaking the execution of any work in Form 'Z' appended to the rules and also the completion of such work within three days from the date of completion of such work.

9. The licensee shall afford all facilities to the Electrical Inspector or any person authorised by him in writing to inspect at all times any work under execution.

10. The Electrical Inspector may, if in his opinion the work under execution is likely to cause damages to the life or property of the consumer or any other person, direct to stop the work and rectify the defects. The licensee shall comply with such direction.

11. The licensee shall at all times ensure safety to the public.

12. The licensee shall be bound to comply with the provisions of the Indian Electricity Act 1910 and the Indian Electricity Rules 1956.

Deputy Secretary to Government of Karnataka,
Public Works and Electricity Department.

GOVERNMENT OF KARNATAKA

[Rule 15(3)]

Form 'LB' No.....

LICENCE TO ELECTRICAL CONTRACTORS

CLASS 'III'

Mr./Messrs..... is/are hereby authorised to carryout Electrical Installation Work in the State of Karnataka subject to the conditions mentioned in the Rules issued by the Government of Karnataka under Government Notification.

Bangalore. Deputy Secretary to Government of Karnataka,

Dated : Public Works & Electricity Department.

Date of renewal	Date of Expiry	Initials of the authority

Conditions

1. This licence must be got renewed annually and must be produced on demand by the Officer of the Electrical Inspectorate Government of Karnataka.

2. This licence is valid for carrying out the following nature of electrical installation :—

Class 'III' :—Low voltage electrical installation works only.

3. The holder of this licence shall send intimation to the Secretary Licencing Advisory and Examinations Board in writing within the periods specified below as to very change of ;

(a) Address of the place of business.—Within two months of such change.

(b) Agent or Manager (in case of a Limited Company).—Within seven days of such change.

(c) Testing Instruments.—Within seven days of such change.

and shall also send similar intimation as to dissolution of partnership within seven days of the date of such dissolution.

4. (a) Megger 500 V. Class.

(b) Live Line Tester (One for each wiremen).

(c) One wire guage.

(d) Hand Rubber Gloves tested to 5 kV.

5. The licensee shall himself hold certificate of competency and valid Electrical Supervisor permit issued by the Board or employ Supervisors holding competency Certificate and valid Electrical Supervisor permit issued by the Board endorsed to his firm. Hence shall maintain "Attendance Register".

6. The licensee shall get the work done only through the wiremen holding valid wiremen permit issued by the Board under direct Supervision by the Supervisor. Hence shall maintain "Work Allocation Register".

7. Every work undertaken by the licensee shall be evidenced by a written agreement with the person concerned. The wiring and other

aterials used by the licensee for the work executed shall conform
) the standards approved by I.S.I. Hence, shall maintain
a) Application Register, (b) Material Issue Register and (c) Copies
f estimates and agreements duly signed by the licensee and the
onsumer concerned.

8. The licensee shall intimate the local Electrical Inspectorate Officer
efore undertaking the execution of any work in Form 'Z' appended
) the rules and also the completion of such work within three days
:om the date of completion of such work.

9. The licensee shall afford all facilities to the Electrical Inspector
r any person authorised by him in writing to inspect at all times
ny work under execution.

10. The Electrical Inspector may, if in his opinion the work under
xecution is likely to cause danger to the life or property of the
onsumer or any other person, direct to stop the work and rectify
ie defects. The licensee shall comply with such direction.

11. The licensee shall at all times ensure safety to the Public.

12. The licensee shall be bound to comply with the provisions of
ie Indian Electricity Act, 1910 and the Indian Electricity Rules, 1956.

Deputy Secretary to Government of Karnataka,
Public Works & Electricity Department

The following fees shall be levied as under :

1. *Electrical Contractor's License*—

(*a*) Initial fee for Class I Contractor's Licence ..	Rs. 300.00
(*b*) Initial fee for Class II Contractor's Licence ..	Rs. 200.00
(*c*) Initial fee for Class III Contractor's Licence ..	Rs. 100.00
(*d*) Annual Renewal fees for	
Class I	Rs. 75.00
Class II	Rs. 50.00
Class III	Rs. 25.00
(*e*) Penalty for renewal of Contractors Licences Class I, Class II and Class III.	Rs. 25.00
(*f*) Issue of Duplicate License	Rs. 25.00

2. *Electrical Supervisors Certificate of Competency and permits*—

(*a*) Initial fees for admission to Examination and issue of certificate of competency and permit.	Rs. 60.00
(*b*) Annual renewal fee	Rs. 25.00
(*c*) Penalty for late renewal	Rs. 15.00
(*d*) Issue of duplicate certificate or permit ..	Rs. 25.00
(*e*) Issue of exemption certificate and permit for degree or Diploma holders, or an reciprocal basis or licenciates.	Rs. 25.00

3. *Wireman's permit*—

(*a*) Initial fee for admission to examination and issue of permit.	Rs. 25.00
(*b*) Annual renewal fee	Rs. 10.00
(*c*) Penalty for late renewal	Rs. 10.00
(*d*) Issue of duplicate permit	Rs. 25.00
(*e*) Issue of wireman permit under reciprocal basis or under exemption category for recognised certificate holders.	Rs. 25.00
(*f*) Special Wiring permission for large public concerns	Rs. 200.00
(*g*) Special wiring permission for residential houses..	Rs. 10.00

GOVERNMENT OF KARNATAKA

Application for an Electrical Contractor's Licence

(For Class I, II and III)

(To be filled in English)

Name in which an Electrical Contractor's license is applied for

Business Adress .. ..

Full name, Home Address and Age of the proprietor

Father's name .. ..

Name, home address and age of partners if any

Class of license now applied for (State here Class I, II or III).

If a contractors licence has been previously granted give detail thereof.

Details of Supervisor permit holders employed on the strength of whose permits, the licence is applied for

Name	Permanent address	Permit No.	Date of expiry of permit	Challan receipt Nos. Dt for Rs.

Supervisor.

Particulars of instruments maintained by the applicant to be furnished.

(*a*) For Class I Contractor—

(1) Meggers 1,000 Volts Class & 500 Volts Class.

(2) Voltmeter 0–600 V Range

(3) Ammeter 0–60 Amps. Range

(5) Live Line Tester (One for each wireman
(6) Wire Guage or micro meter
(7) Hand Rubber Gloves—tested to 15 kV
(8) Tong Tester 0–600 Amps Range
(9) Earth Tester with accessories.

(*b*) For Class II Contractors :

(1) Megger—500 V Class
(2) Voltmeter 0–600 V Range
(3) Ammeter 60 Amps. Range
(4) Live Line Tester (One for each wire man).
(5) Hand Rubber Gloves tested to 15 kV
(6) One Wire guage.

(*c*) For Class III Contractors :

(1) Megger—500 V Class
(2) Live Line Tester (One for each wireman).
(3) One wire guage
(4) Hand Rubber gloves tested to 5 kV.

9. Fees paid into the Government. Treasury/ Reserve Bank of India under the relevant budget head or at the cash counter of Electrical Inspector to Government.	Challan/Receipt No. Dated for Rs. 300 for Cl. I for Rs. 200 for Cl. II for Rs. 100 for Cl. III to be forwarded with the application.

Note :—1(a). The applicants shall produce the solvency from Revenue officer not below the rank of Tahsildar or from the Manager/ Agent of any Scheduled Banks as per proforma ;

Solvency for each category is as under :

Class I Contractor ..	Rs. 10,000
Class II Contractor ..	Rs. 5,000
Class III Contractor ..	Rs. 2,000

The undertaking should be on Rs. 4.50 stamp paper as per proforma.

(*b*) In case of unemployed Graduates/Diploma Holders in Electrical or Mechanical Engineering (General) for Class I or Class II the

2. The following Registers in the prescribed form should be opened.
(1) Application Register, (2) Attendance Register, (3) Work allocation Register, (4) Materials Issue Register.

I/We hereby declare that the particulars stated above are correct to the best of my/our knowledge and that I/We fully understand the terms and conditions under which an Electrical Contractor's Licence is granted a breach of which will render the Licence liable for suspension or cancellation.

Signature of Proprietor and partners if any.

Date 19

FORM—D-1 (*Rule* 10)

(Solvency Certificate from Bank)

This is to certify that Sri..... is maintaining .....amount in the.....Bank since .....His present account is more than Rs. .....Hence in our opinion Sri..... is financially sound and stable to under take Electrical Contract worth Rs. .....

Manager/Agent.

Note : 1. Rs. 10,000 for Class I Contractors
Rs. 5,000 for Class II Contractors
Rs. 2,000 for Class III Contractors.
2. Rs. 3,000 in case of unemployed Graduate and Diploma holders (Electrical/Mechanical Engineering) for Class I or Class II categories.

(Undertaking regarding Bank solvency in Rs. 4.50 stamped paper).

I, ...hereby undertake to maintain a minimum amount of Rs..... in ..... Bank as long as I hold the valid Electrical Contractor licence issued by the Government of Karnataka, the breach of which will render my licence liable for cancellation.

Subject :—Grant of Solvency Certificate for Rs....
in favour of Sri.....

SOLVENCY CERTIFICATE

This is to Certify that Sri.....is the holder of immovable property has noted in the margin.

This immovable property as valid upto Rs.....in all. He has not encumbered the same upto.....

He is solvent to an extent for Rs.....Only. Certified that the Solvency Certificate has been issued to be produced before the .....for contract work and this is valid upto..... .....from the date of issue.

Certified that Certificate is valid only for this specific purpose.

Certified that the court fee stamp for Rs.....only, has been recovered and affixed.

Given this day under my own and seal.

Tahsildar

Undertaking regarding Solvency Certificate on Rs. 4.50 stamped paper (immovable property)

I.....hereby undertake that the property shown in the Solvency Certificate No.....dated.....issued by the Tahsildar.....taluk will not be disposed off or otherwise encumbered during the period I hold the Valid Electrical Contractor Licence issued by the Government of Karnataka, the breach of which will render of my licence liable for cancellation.

FORM 'E'

(*Rule*—16)

GOVERNMENT OF KARNATAKA

Application for renewal of an Electrical Contractors Licence (both Class 'I', Class 'II' and Class 'III')

.....

.....

Name in which the renewal of an Electrical Contractor's License is applied for.

Business Address .. ..

Details of License held .. ..

(*a*) Class .. ..

(*b*) Number .. ..

(*c*) Date of Expiry .. ..

Particulars of Supervisors in the employ of the applicant.

rvisors/Names	Permanent Address	Permit No.	Date of expiry of permit	Ch/Ret. No. and Date for Rs.
(1)	.....	.....	.....	.....
(2)	.....	..	..	

Whether the applicant has paid the licence renewal fee for the year into the Government Treasury/Reserve Bank of India under relevant Budget Head. — Challan No. Date.....for Rs. (to be forwarded with the (application).

Number of installations completed during the proceeding year :—

(*a*) Power (Medium and High Voltage)

(*b*) Lighting .. ..

(*c*) Cooling and Heating .. ..

Whether the copies of estimates and agreement duly signed by the consumer and the contractor 'Z' Forms have been maintained for all the works undertaken

Whether any evidence to substantiate the financial stability to an extent of Rs. One Thousand is enclosed.

Has the applicant maintained the following registers upto date.

(a) Attendence Register .. ..
(b) Application Register .. ..
(c) Work allocation Register ..
(d) Material issue Register ..

Particulars of instruments maintained to be furnished (Make and Serial Number of the instruments to entered).

For Class 'I' Contractors—

(1) One 1,000 Vots Megger and one 500 V. Megger.l
(2) One 0—500 Volts Voltmeter ..
(3) One 0—60 A Ammeter .. ..
(4) One Phase Sequence Mater ..
(5) One Live Line Testor (One for each Wireman).
(6) Wire Guage or Micrometer ..
(7) One Pair of Hand Rubber Gloves tested to 15,000 Volts.
(8) One Tong Testor 0—600 Amps. ..
(9) One Earth Testor with accessories ..
(10) A copy of the I. E. Rules 1956 with Amendments upto date and a copy of the Licensing Rules.

For Class 'II' Contractors—

(1) One 500 Volts Megger .. ..
(2) Live Line Tester (one for each wireman)
(3) Voltmeter 0—600 V range ..
(4) One Ammeter 0—60 Amps. ..
(5) One Pair of Hand Rubber Gloves tested for 15,000 Volts.
(6) One Wire guage .. ..
(7) A copy of the I.E. Rules 1956 with amendments upto date and a copy of Licensing Rules

(c) For Class III Contractors—

(1) One 500 Volts Megger .. ..

(2) Live Line Tester (One for each Wireman).

(3) One pair of Hand Rubber Gloves tested for 5,000 V.

(4) One Wire Guage .. ..

I/We hereby declare that the particulars stated above are correct to the best of my/our knowledge and that I/we fully understand the terms and conditions under which an Electrical Contractor's Licence is renewed a breach of which will render the license liable for suspension or cancellation.

Signature of Applicant/Applicants with seal of the firm.

Date :

Note:—Supervisor permits should be enclosed with the application. Incomplete application will not be considered.

FORM 'F' (*Rules*-19 *and* 26)

Government of Karnataka

Application for Admission to Examination for Electrical Supervisors/Wiremen

(To be filled in Kannada or English)

Full name and address of the Applicant ..	
Father's name	
Date of birth and age	
Details of Technical Qualification (Dates of commencement and termination of each appointment to be given) ..	
Testimonials (originals and copies thereof to be submitted)	
Fees paid into the Govt. Treasury/Reserve Bank of India under relevant budget head :	Challen No. and date : for Rs. (to be forwarded along with the

Language in which the candidate desires to be examined.

(Candidates can be examined in English and in the Kannada Language).

(Centre where the candidate desire to be examined).

I hereby declare that the particulars stated above are correct and tru to the best of my knowledge.

Date : 197 .

Signed in my presence. (*Signature of the applicant*
(*Address to be stated clearly*).

Cross out the Language in which it is intended to give Examinatio The Centres of Examination will be notified by the.....fron time to time in the Local press.

Note :—Testimonial copies attested by a Gazetted Officer should b submitted with the application.

The application must be signed in the presence of the Employe an Hon. Magistrate or a Government official.

Two copies of the latest photographs of the applicant (size 2"x2½ should accompany the application with name and signatur on the back.

Any person making false statements for the purpose of admissio to the Examination shall render himself liable for prosecutio Incomplete application will be rejected.

FORM 'G' (*Rule-22*)

Government of Karnataka

Application for admission to Examination for Electrical Supervisors Minig Installations.

(To be filled in Kannada or English)

Full Name and Address of the Applicant ..

ate of birth and age ..	
etails of Technical Qualification	
etails of past and present service date of commencement and termination of each appointment to be given.	
Testimonials (original and copies thereof to be submitted)	
Fees paid into the Government Treasurey Reserve Bank of India under the relevant budget head ;	Challan No. dated for Rs. (to be forwarded along with the application).
(1) Examination fee for Supervisors' Mining Rs. 60 Language in which the candidate desires to be examined. Candidates can be examined in English and in Kannada Language. Centre where the candidate desires to be examined.	

I hereby declare that the particulars stated above are correct and true the best of my knowledge.

ated :

gned in my presence. *Signature of the applicant (Address to be stated clearly).*

gnature.

signation.

Cross out the language in which it is not intended to give Examination.

The Centres of examination will be notified by the.....from ne to time in the *Karnataka Gazette*, or in local press.

Note:—Copies of testimonials attested by a Gazetted officer should be submitted along with the application.

Two copies of the latest photograph of the applicant (size 2"x2½") should accompany the application with name and signature on the back ;

Any person making false statement for the purpose of admission to the Examination shall render himself liable for prosecution. The application of such person may also be rejected.

FORM 'H'

Rule 19)

GOVERNMENT OF KARNATAKA

Certificate of Competency—Industrial Supervisor

Sir .....having satisfied the Licensing Advisory and Examinations Board by passing the prescribed examination for Supervisor (Industrial) held in.....on.....is hereby granted this Certificate of Competency.

Bangalore

Deputy Secretary to Government of rnataka, Public Works and Elecy, Department.

Dated.....197

FORM 'I'

(*Rule* 22)

GOVERNMENT OF KARNA

(Electrical Supervisor—Mining Installations)

Sri .....having satisfied the Licensing Advisory and Examinations Board by passing the prescribed examination for Supervisors held in.....on.....is hereby granted this Certificate of Competency.

Bangalore,

Deputy Secretary to Government of Karnataka, Public Works and Elecy, Department.

Dated.....197

Note : The permit issued along with the Certificate should be got renewed every year by the holder.

FORM 'J'

(*Rule* 19)

GOVERNMENT OF KARNATAKA

(Certificate of Competency

Sri.....having satisfied the Licensing Advisory and Examinations Board that his qualifications entitle him for exemption from taking the prescribed examination for Supervisors is hereby granted this certificate of competency.

Bangalore,

Dated.....197 .

Deputy Secretary to Government of Karnataka, Public Works and Elecy. Department.

Note : The permit issued along with this certificate should be got renewed every year by the holder.

FORM 'K'

(*Rule* 22)

GOVERNMENT OF KARNATAKA

(Certificate of Competency (Electrical Supervisor Mi Installation)

Sri.....have satisfied the Licensing Advisory and Examinations Board that his qualification entitle him from exemption from taking the prescribed examination for Supervisors is hereby granted this certificate of competency.

Bangalore,

Dated.....197 .

Deputy Secretary to Government of Karnataka, Public Works and Elecy. Department.

Note : The permit issued along with this certificate should be got renewed every year by the holder.

FORM 'M'

(*Rule* 19)

(Permit in Book Form)

GOVERNMENT OF KARNATAKA

Outside the Cover : Government of Karnataka—3 Lion Head

Permit for Supervisors

Inside of Cover : Photograph

First Page : Government of Karnataka

Date of Issue.....

Name .....

Date of Examination.....

Place of Examination.....

No. and date of Certificate of Competency.....

mentioned in the Rules issued by the Government of Karnataka, but does not allow him to undertake electrical contracting work unless he hold a contractor's Licence.

This permit is to be carried on the holder's person and is not transferable.

This permit should be got renewed every year and mus be returned to the Licensing Advisory Board on demand

Third Page : Remarks

Fourth Page : Remarks

Renewal and Endorsements

Renewed for the year.....**Endorsed in favour of**.....
.....**Fees paid Challan/Receipt No**.....**and date**
.....**for Rs**.....**for the year**.....

FORM 'N'

(*Rule* 22)

(Permit in Book Form)

Outside of Cover : Government Monogram—Government of Karnatak 3 Lion Head.

(Permit for Supervisors Mining Installations)

Inside of Cover : Photograph

First Page : Government of Karnataka

Date of Issue.....

Name.....

Date of Examination.....

No. and date of certificate of competency.....

Second Page : This permit allows the holder to supervise and carryout electrical installation work, subject to the conditions mentioned in the Rules issued by the Government of Karnataka.

The permit is to be carried on the holder's person and is not transferable.

This permit should be got renewed every year and must be returned to the Licensing Advisory Board on demand.

Third Page : Remarks

Fourth Page : Remarks

Outside of Cover : Monogram of Government Government of Karnataka
3 Lion Heads.

Permit for Wireman

Inside of Cover : Photograph
First Page : Permit of Wireman
Date of Issue.....
Name.....
Date of Examination.....
Place of Examination.....
Second Page ; This permit allows the holder to carry out wiring work only, subject to the conditions mentioned in the Rules issued by the Government of Karnataka but does not allow him to undertake Supervising or Electrical Contractor's Work.

This permit is to be carried on the holder's person and is not transferrable.

This permit should be got renewed every year and must be returned to the Licensing Advisory Board on demand.

Third Page : Remarks
Fourth Page ; Remarks

Renewal and Endorsements

Renewed for the Year..... Endorsed in favour of.....
for the year.....
Fees paid Challan/Receipt No. and Date.....
for Rs.....

Deputy Secretary to Government of Karnataka, Public Works and Elecy. Department.

FORM—P

GOVERNMENT OF KARNATAKA

Register of Supervisors, Wiremen and Apprentices

Sl. No.	Name of Employees	Wiring Staff			Date of Employment	Date of Discharge	Remarks
		Supervisors Permit No.	Wiremen's Permit No.	Apprentices			

Note:—Extract of the above shall be sent to the Secretary, Licensing Advisory and Examinations Board along with the renewal application for the Licence.

FORM—Q

(*Rules* 19 *and* 26)

Certificate to be granted by present or past employer to a Candidate for Electrical Supervisor's or Wiremen's Examination.

1. Applicant's name and address .. ..
2. Father's name .. ..
3. Designation .. ..
4. Date of admission as per the Register ..
5. Nature of work .. ..
6. Date of leaving as per the Register ..
7. Attendance as per Register .. ..
8. Conduct .. ..
9. Remarks .. ..

Place;

Date:

Signature of the Employer or Licensed Electrical Contractor (*with seal*)

Note:—All the columns shall be properly filled up. Incomplete forms will be rejected.

(*Rule—22*)

Certificate to be granted by present or past employer to a candidate for Electrical supervisor's or Mining installations.

1. Name and address of the apprentice with father's name.
2. Designation .. ..
3. Date of Admission as per the Register ..
4. Nature of work, (Nature of Training, Experience, and Responsibility in which he was or is being employed by each employer).
5. Date of leaving as per the Register ..
6. Attendance as per the Attendance Register
7. Conduct .. ..
8. Remarks .. ..

Place : *Signature of employer with official seal.*
Date :

N. B.:—Incomplete forms shall be rejected.

FORM—8
(Rule—19)

Information to be furnished by an existing licensed Electrical Contractor before admission to Electrical Supervisor's Examination.

1. Name with father's name .. ..
2. For how many years are you a Licensed Electrical Contractor ?
3. Are you a current Licensed Electrical Contractor ? If so, give License No.
4. Give particulars, if any, of big wiring jobs done by you (such as Cinema, Factories, etc., Give names and address of their Management.
5. Total No. of installations actually wired and serviced by you.
   (i) Lighting .. .. (i) .....
   (ii) Heating .. .. (ii) .....

Place : *Signature of the Applicant.*

Date :

N.B. **:—Incomplete form will be rejected.**

FORM—T

(*Rule*—27)

Application for renewal of Electrical Supervisor's/Wiremen Perm

1. **Name of the Applicant** .. ..
2. **Address :** (i) Permanent .. ..
   (ii) Present .. ..
3. **Name and address of Licensed Electrical Contractors under whom he was working during the past three years.**
4. **No. and date of permit issued to him** ..
5. **Has the Government Treasury/Reserve Bank Challan for the renewal fee been enclosed.** Challan No. for Rs. Date

Place : *Signature of the Applicant.*

Date :

N.B. **:—Incomplete form will be rejected.**

2	Name and address of the applicant.
3	Location of the Installation
4	Nature and details of Installation
5	Date of submission estimate to the consumer.
6	Date of acceptance of estimate by the consumer.
7	Date of signing of agreement.
8	Date of submission of application to supply authorities.
9	Date of inspection by supplier.
10	Date of receipt of sanction and reference
11	Date of commencement of work.
12	Date of submission of commencement report to the Elecl. Inspectorate.
13	Date of completion of work
14	Date of submission of completion report.
15	Date of service
16	R.R. No.
17	Remarks

FORM 'V'

Attendance Register of Employees **Name of L.E.C L.A. No.**

Employees includes Supervisor, Wiremen, Unskilled Labour and Apprentics if any) Month and Year.....

Designation and permit No.	1, 2, 3, ...31	Remarks (mention here when appointment order or dispensed)

FORM 'W'

Work Allocation Register

Date	Name of the Employee	Installation Address	Initial of Supervisor	Initial of Wireman	Initial of the Employer	Remarks

FORM 'X'

Materials Issue Register

Name of the work : **Reference to application Register**

Date	Particulars of material issued (give details such as make, guage, etc.	Quantity	Remarks

N.B.: **Page I of the Material issue Register shall exhibit the particulars of testing instruments maintained by the Licensed Electrical Contractor.**

Sl. No.	Name of the instrument with remarks	Make	Type and Sl No. of the Instrument	Remarks

Name of the Licensed Electrical Contractor
Licence No.
Date

Name of the Consumer and Address .....
.....

FORM—Y

Estimate and Agreement

Estimate for providing.....installation to the buildin ituated at.....

l. No.	*Description of work*	*Unit*	*Rate* ₹
1.	Providing lighting/plug and fan points using materials with type of wiring as specified below.	No.	
2.	Running separate circuits for grouping of points ..	Mtr.	
3.	Providing 15 Amps. I.C.D.P. for main control for ighting circuit.	No.	
	Heating and S.P.H. Power		
4.	Running heating circuit 7/20 copper/ 4mm/6mm Al–insulated wire with 14 guage timed copper for continuous earth wire.	Mtr.	
5.	Providing 30 Amps I.C.D.P. Switch for main control of heating circuits.	No.	
6.	Providing heating outlats with 3 pin sockets and 15 amps switch.	No.	
7.	Providing main earth electrodes as per ISS 3043 of 1966	No	
8.	Providing regulator boards for fan points ..	No	
	Power 3 Phase		
9.	Running 3 phase power circuit using 4 of..(size) wire and .....conduct pipe.	Mtr	
10.	Providing T.P. switches....Amps for main and individual control with necessary wiring connections.	No.	
11.	Providing separate earth electrode for the power circuit as per ISS 3043 of 1966.	No.	
12.	Running two earth wires to the terminals of the equipment from the independent electrodes.	Mtr	
13.	Providing foundation for motors and fixing the motor to the foundation using suitable bolts and nuts.	No.	
14.	Fixing of starter using suitable board and wiring the	No.	

efinitions :

1. Point includes switch, ceiling rose, holder and its wiring.

2. Plug point situated by the side of some other switch shall be taken a half a point and situated independently will be taken as a full point.

3. All plugs will be of 3 pin type with a continuous with wire of adequate apacity, one of the pins being connected to earth.

4. Type of wiring shall be C. T. S. wiring, caring caping, open onduit, concealed conduit wiring, either with lamp system or with unction boxes.

Signature of the Consumer *Signature of the Contractor, and Address with Seal and with Licence No.....*

AGREEMENT FORM

(In accordance with the Rule of the Rules and conditions for grant of licence for Electrical Contractor etc.,)

An agreement made on this.....day of the month.....of the year.....between M/s./Shri/Smt.....hereinafter called as the prospective consumer (with expression wherever context so admits shall include his/her successors and assigns) of the one part and M/s.Shri/Smt.....hereinafter called the licenced Electrical Contractor (which expression wherever context so admits shall include his/her successors and assigns)of the other part.

WHEREAS at the request of the prospective consumer, the Contractor has agreed for the execution of electrical work at Door No..... Street.....Town or village.....subject to the following conditions and also to complete and handover the same to the consumer along with the test and completion report in satisfactory and work man like manner in accordance with the relevant rules in force on or before.....day of (the month).....the year.....

Now this Agreement witness as follows :

1. In this agreement unless the context otherwise required the rules mean the following rules as amended from the time to time :

(a) (i) Indian Electricity Rules, 1956.

(ii) Mysore Cinemas (Regulation) Rules 1971.

(iii) Rules and Conditions for the grant of licenses to Electrical Contractors, etc., 1958.

(iv) Karnataka (Licensing of Electrical Contractors and grant of certificates and permits to Electrical Supervisors and Wiremen), Rules 1976

(*b*) I.S.S. means Indian Standard Specifications.

(*c*) Supply authority means : the Karnataka Electricity Board of any other licensee who has undertaken to supply energy in the area.

2. A copy of the estimate (in the *proforma* prescribed) with specifications of the materials to be used and agreed rates and the probable total cost of the work shall accompany this agreement duly signed the prospective consumer and the contractor.

3. The contractor shall not petition for the revision of rate mentioned in the estimate (under item 2) under any circumstances under any stage of work during the period of contract unless mutually agreed upon by the Contractor and consumer in writing.

4. The contractor shall adopt any alterations or addition at the request in writing of the consumer at least three days in advance to such alteration or addition. Rates for such alteration addition, if not covered in the estimate shall be mutually agreed upon in writing.

(*b*) All amounts received towards the works by the Contractor shall be acknowledged on stamped receipt only. Such stamped receipt shall be preserved by the Consumer. Copied of such receipts shall be preserved by Contractor.

6. The contractor may extend the period of contract for the completion of the work with the consent of the consumer in writing stating clearly the period of extension agreed under intimation to the supplier.

7. If the delay is caused due to unsatisfactory progress of civil work such delay caused shall be immediately intimated by the contractor to the consumer and the supplier in writing and further extension of period for completing the wiring work will be decided upon in consultation with the contractor. Should thereby variation in the market prices of Electrical materials during the extended period, the variation of rates in the estimates shall be fixed as agreed to by both the parties.

8. The contractor's shall get the work done only through authorised wireman, under direct supervision of authorised supervisor's under his employ holding valid permit and certificate of compentency issued by the Electrical Inspector to Government after the approval of the Government..

9. The Contractors shall use materials confirming to the ISS standard or other, equivalent standard and execute the works in sound substantial and workmen like manner as per rules prescribed under 1(A).

10. The contractor's shall stand guarantee for a period of one year from the date of service for any defect in the installation which may appear due to bad workmenship during execution and replace any defective materials and rectify the defects of bad workmenship, free of cost during the guarantee period.

11. (*a*) The consumers shall enter into an agreement with the supply authority and pay all the required deposits towards the service mains, supervision charges monthly minimum etc., to the supply authority without undue delay to facilitate the contractor to get installation serviced.

(*b*) The contractors shall not be responsible for the delay in servicing the installation provided that the completion report has been handed over to the consumer in advance before the expiry date of the agreement period.

12. In case of a difference or dispute betwweer the contractor and consumer during execution of work regarding the quality of materials or workmanship, the same shall be referred to the Electrical Inspector/Asst. Electrical Inspector to Goverment of the area by either party giving seven days clear notice of his intention to do so to the other party.

13. The Electrical Inspector's decision regarding dispute in quality of the material used and workmanship shall be final.

14 (*a*) The consumer shall enclose a copy of this agreement with the estimate along with the application to the supplier for power sanction.

(*b*) The Contractor shall intimate the concerned Electrical Inspectorate authority in the prescribed form 'Z' within 48 hours of the commencement of work, in case of embedding works in RCC roofing the same shall be intimated together with the agreement and estimate to the Inspectorate.

An Amount of Rs. ..... in words.....)
is paid to the contractor as initial advance towards the said contract at the time of signing this agreement and further payment shall be made as mutually agreed upon.

Signed and sealed by the said parties on this.....of the month

To

The Electrical Inspector to Government,

DEI/AEI/JEI,

Electrical Inspectorate,

.....

I/We have undertaken the Electrical I

1. Name and address of the Consumer.
2. Name, Location and Address of Installation
3. Nature of installation.
4. Permanent or temporary.
5. Details of work.
6. Date of Commencement.
7. Date of Completion as per ag
8. Name and permit number(s) of Wiremen ; deputed for the above job.
9. Name of apprentices(s) if any working with stall shown in item 8 above.
10. Name and certificate of competence No. of the Supervisor.

Signature of Consumer. *Signature of the Contractor with Seal of the firm and Licence No*

Explanation note for filling up the Form :

For Item 3 : State whether extra-high, high, medium or low voltage installation and whether domestic (light, power etc.,) water pump, cinema, factories, Mills overhead lines etc.,

For Item 5 : Full details as to number of lamps, plugs, generators, motors and any other electrical accessories with horse power or capacity to be given.

For Item 6 : This report to be sent to reach the office of the Electrical Inspector or his Assistant within 48 hours after commencement of such work.

N.B.—This report shall be sent to local Electrical Inspectorate office